NEUROSCIENCE LETTERS

Vol. 159 Nos. 1,2 **CONTENTS** **SEPTEMBER 3rd, 1993**

(Cited in Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus, PASCAL M and Science Citation Index)

Announcement from the Publisher v

Potentiating effects of serotonin and vasoactive intestinal peptide on the action of glutamate on suprachiasmatic neurons in brain slices
S.-K. Huang and J.-T. Pan (Taiwan) 1

Passive biophysical membrane properties of nucleus reticularis gigantocellularis neurons in brain slices from the rat
J.-C. Yen and S.H.H. Chan (Taiwan) 5

Participation of nucleus reticularis gigantocellularis in the antinociceptive effect of angiotensin III in the rat
H.-W. Yien, J.Y.H. Chan, H.-F. Tsai, T.-Y. Lee and S.H.H. Chan (Taiwan) 9

Neurohormone D increases the intracellular Ca^{2+} level in cockroach neurones through a Cd^{2+}-sensitive Ca^{2+} influx
D. Wicher and G. Reuter (FRG) 13

The plant lectin *Bandeiraea simplicifolia* $I\text{-}B_4$ identifies a subpopulation of small diameter primary sensory neurones which innervate the skin in the rat
M.B. Plenderleith and P.J. Snow (Australia) 17

Changes in cortical field potentials during learning processes of go/no-go reaction time hand movement with tone discrimination in the monkey
H. Gemba (Japan) 21

Central action of C-type natriuretic peptide on vasopressin secretion in conscious rats
G. Shirakami, H. Itoh, S.-i. Suga, Y. Komatsu, N. Hama, K. Mori and K. Nakao (Japan) 25

Immunoreactive corticotropin-releasing hormone levels in discrete hypothalamic nuclei of genetically obese Zucker rats
S. Nakaishi, Y. Nakai, J. Fukata, Y. Naito, T. Usui, M. Fukushima, H. Jingami, K. Nakao and H. Imura (Japan) 29

Ultrastructural demonstration of exocytosis of neurosecretory granules in the neurohypophysis of the frog *Rana temporalia*
S.A.H. Al-Yousuf, D.V. Pow and N. Mizuno (Qatar, England, Japan) 32

Pituitary adenylate cyclase activating peptide and vasoactive intestinal polypeptide: differentiation effects on human neuroblastoma NB-OK-1 cells
M. Hoshino, M. Li, L.Q. Zheng, M. Suzuki, T. Mochizuki and N. Yanaihara (Japan) 35

Neurons in the intertrigeminal region of the rat send projection fibers to the superior colliculus
Y. Yasui, T. Kayahara, T. Shiroyama and K. Nakano (Japan) 39

Human auditory cortex responses to rising versus falling glides
P.J. Pardo and M. Sams (Finland) 43

Interaction of zinc with ionotropic and metabotropic glutamate receptors in rat hippocampal slices
X. Xie, U. Gerber, B.H. Gähwiler and T.G. Smart (UK, Switzerland) 46

MK-801, an *N*-methyl-D-aspartate receptor antagonist, blocks quinolinic acid-induced lipid peroxidation in rat corpus striatum
A. Santamaría and C. Ríos (Mexico) 51

Nicotinamide adenine dinucleotides mimic adenosine inhibition on synaptic transmission by decreasing glutamate release in rat hippocampal slices
M. Galarreta, J.M. Solís, N. Menéndez, C. Conejero and R.M. del Río (Spain) 55

Molecular properties of the glutamate receptor mediating synaptic excitation in rat hypothalamic neurons
D. Swandulla, U. Misgeld and S. Beckh (FRG) 59

Thienyl-GABA derivatives as specific baclofen agonists in the rat and cat spinal cord in vivo
G. Lacey, P. Berthelot, C. Vaccher, N. Flouquet, M.P. Vaccher, M. Debaert and D.R. Curtis (Australia, France) 64

Involvement of NPY-immunoreactive neurons in the cerebral cortex of amyotrophic lateral sclerosis patients
K. Nihei and N.W. Kowall (USA, Japan) 67

Distribution of NADPH-diaphorase positive nerve fibers in the rat nasal mucosa
T. Hanazawa, H. Motosugi, A. Konno, T. Kaneko, K. Tanaka and T. Chiba (Japan) 71

Monkey hippocampal neuron responses related to spatial and non-spatial influence
T. Ono, S. Eifuku, K. Nakamura and H. Nishijo (Japan) 75

(Contents continued on p. 239)

This journal is printed on acid-free paper.

0304-3940(19930903)159:1/2;1-6

NEUROSCIENCE LETTERS

Vol. 159 Nos. 1,2 **CONTENTS** **SEPTEMBER 3rd, 1993**

(Cited in Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus, PASCAL M and Science Citation Index)

Announcement from the Publisher v

Potentiating effects of serotonin and vasoactive intestinal peptide on the action of glutamate on suprachiasmatic neurons in brain slices
S.-K. Huang and J.-T. Pan (Taiwan) 1

Passive biophysical membrane properties of nucleus reticularis gigantocellularis neurons in brain slices from the rat
J.-C. Yen and S.H.H. Chan (Taiwan) 5

Participation of nucleus reticularis gigantocellularis in the antinociceptive effect of angiotensin III in the rat
H.-W. Yien, J.Y.H. Chan, H.-F. Tsai, T.-Y. Lee and S.H.H. Chan (Taiwan) 9

Neurohormone D increases the intracellular Ca^{2+} level in cockroach neurones through a Cd^{2+}-sensitive Ca^{2+} influx
D. Wicher and G. Reuter (FRG) 13

The plant lectin *Bandeiraea simplicifolia* $I\text{-}B_4$ identifies a subpopulation of small diameter primary sensory neurones which innervate the skin in the rat
M.B. Plenderleith and P.J. Snow (Australia) 17

Changes in cortical field potentials during learning processes of go/no-go reaction time hand movement with tone discrimination in the monkey
H. Gemba (Japan) 21

Central action of C-type natriuretic peptide on vasopressin secretion in conscious rats
G. Shirakami, H. Itoh, S.-i. Suga, Y. Komatsu, N. Hama, K. Mori and K. Nakao (Japan) 25

Immunoreactive corticotropin-releasing hormone levels in discrete hypothalamic nuclei of genetically obese Zucker rats
S. Nakaishi, Y. Nakai, J. Fukata, Y. Naito, T. Usui, M. Fukushima, H. Jingami, K. Nakao and H. Imura (Japan) 29

Ultrastructural demonstration of exocytosis of neurosecretory granules in the neurohypophysis of the frog *Rana temporalia*
S.A.H. Al-Yousuf, D.V. Pow and N. Mizuno (Qatar, England, Japan) 32

Pituitary adenylate cyclase activating peptide and vasoactive intestinal polypeptide: differentiation effects on human neuroblastoma NB-OK-1 cells
M. Hoshino, M. Li, L.Q. Zheng, M. Suzuki, T. Mochizuki and N. Yanaihara (Japan) 35

Neurons in the intertrigeminal region of the rat send projection fibers to the superior colliculus
Y. Yasui, T. Kayahara, T. Shiroyama and K. Nakano (Japan) 39

Human auditory cortex responses to rising versus falling glides
P.J. Pardo and M. Sams (Finland) 43

Interaction of zinc with ionotropic and metabotropic glutamate receptors in rat hippocampal slices
X. Xie, U. Gerber, B.H. Gähwiler and T.G. Smart (UK, Switzerland) 46

MK-801, an *N*-methyl-D-aspartate receptor antagonist, blocks quinolinic acid-induced lipid peroxidation in rat corpus striatum
A. Santamaría and C. Ríos (Mexico) 51

Nicotinamide adenine dinucleotides mimic adenosine inhibition on synaptic transmission by decreasing glutamate release in rat hippocampal slices
M. Galarreta, J.M. Solís, N. Menéndez, C. Conejero and R.M. del Río (Spain) 55

Molecular properties of the glutamate receptor mediating synaptic excitation in rat hypothalamic neurons
D. Swandulla, U. Misgeld and S. Beckh (FRG) 59

Thienyl-GABA derivatives as specific baclofen agonists in the rat and cat spinal cord in vivo
G. Lacey, P. Berthelot, C. Vaccher, N. Flouquet, M.P. Vaccher, M. Debaert and D.R. Curtis (Australia, France) 64

Involvement of NPY-immunoreactive neurons in the cerebral cortex of amyotrophic lateral sclerosis patients
K. Nihei and N.W. Kowall (USA, Japan) 67

Distribution of NADPH-diaphorase positive nerve fibers in the rat nasal mucosa
T. Hanazawa, H. Motosugi, A. Konno, T. Kaneko, K. Tanaka and T. Chiba (Japan) 71

Monkey hippocampal neuron responses related to spatial and non-spatial influence
T. Ono, S. Eifuku, K. Nakamura and H. Nishijo (Japan) 75

(Contents continued on p. 239)

This journal is printed on acid-free paper.

0304-3940(19930903)159:1/2;1-6

CONTENTS *(continued from the back cover)*

Abdominal surgery induces c-fos expression in the nucleus of the solitary tract in the rat
T.T. Zittel, R. De Giorgio, N.C. Brecha, C. Sternini and H.E. Raybould (USA) 79
High ethanol sensitivity of recombinant AMPA-type glutamate receptors expressed in mammalian cells
D.M. Lovinger (USA) 83
Ceruloplasmin levels in the human superior temporal gyrus in aging and Alzheimer's disease
J.R. Connor, P. Tucker, M. Johnson and B. Snyder (USA) 88
Isoflurane prevents transitions to tonic and burst firing modes in thalamic neurons
C.R. Ries and E. Puil (Canada) 91
Neuropeptide K potently stimulates the hydrolysis of phosphatidylinositol in the rat spinal cord
A. Prat, H. Hasséssian and R. Couture (Canada) 95
Segregation of cerebrorubral and cerebellorubral synaptic inputs on rubrospinal neurons of fetal cats as demonstrated by intracellular recording
W.-J. Song, M. Kanda, T. Ohno, M. Kanda, H. Oikawa and F. Murakami (Japan) 99
Transmitter-like L-3,4-dihydroxyphenylalanine tonically functions to mediate vasodepressor control in the caudal ventrolateral medulla of rats
J.-L. Yue, Y. Goshima and Y. Misu (Japan) 103
Enteric glial cells are major contributors to formation of cyclic AMP in myenteric plexus cultures from adult guinea-pig small intestine
F.L. Christofi, M. Hanani, N. Maudlej and J.D. Wood (USA) 107
Prion protein is strongly immunolocalized at the postsynaptic domain of human normal neuromuscular junctions
V. Askanas, M. Bilak, W.K. Engel, A. Leclerc and F. Tomé (USA, France) 111
Self-generated rapid taps directed to the opposite forearm in man: anticipatory reduction in the muscle activity of the target arm
A. Struppler, L. Gerilovsky and C. Jakob (Germany) 115
Dexamethasone abolishes the activation by nerve growth factor of protein kinase N: effects of nerve growth factor and dexamethasone on protein kinase N
C. Volonté (USA) 119
Adenosine antagonists prevent hypoxia-induced depression of excitatory but not inhibitory synaptic currents
A.N. Katchman and N. Hershkowitz (USA) 123
The interaction between locomotion, striatal dopamine and paramedian reticular nucleus in rats
S.-F. Chuang, C.-Y. Chai and M.-T. Lin (Taiwan) 127
Ammonia-induced alterations in the activities of synaptosomal cholinesterases of rat brain under in vitro and in vivo conditions
R.P.R. Devi and C.R.K. Murthy (India) 131
Alterations in the concentration of serotonergic and dopaminergic substances in the cerebrospinal fluid of patients with Parkinson's disease, and their changes after L-dopa administration
H. Tohgi, T. Abe, S. Takahashi, J. Takahashi and H. Hamato (Japan) 135
ATP-sensitive K^+ channel activators suppress the GABAergic inhibitory transmission by acting on both presynaptic and postsynaptic sites in rat cultured hippocampal neurons
T. Ohno-Shosaku, S. Sawada and C. Yamamoto (Japan) 139
Effects of ageing on 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) neurotoxic effects on striatum and brainstem in the rat
M.S. Desole, G. Esposito, P. Enrico, M. Miele, L. Fresu, G. De Natale, E. Miele and G. Grella (Italy) 143
Ganglioside GM1 cooperates with brain-derived neurotrophic factor to protect dopaminergic neurons from 6-hydroxydopamine-induced degeneration
E. Fadda, A. Negro, L. Facci and S.D. Skaper (Italy) 147
Haemorrhage-induced production of Fos in neurons of the lamina terminalis: role of endogenous angiotensin II
E. Badoer, B.J. Oldfield and M.J. McKinley (Australia) 151
Observation of Merkel cells with scanning electron microscopy
Y. Yamashita, K. Toida and H. Ogawa (Japan) 155
Immortalization of a cell line showing some characteristics of the oligodendrocyte phenotype
T. Russo, A.R. Mogavero, R. Ammendola, M. Mesuraca, F. Fiore, A. Fatatis, G. Salvatore and F. Cimino (Italy) 159

Hyperthermia induces 72kDa heat shock protein expression in rat brain in non-neuronal cells
T. McCabe and R.P. Simon (USA) 163
Chronic stress affects in vivo hypothalamic somatostatin release but not in vitro GH responsiveness to somatostatin in rats
A. Benyassi, J.-P. Roussel, C. Rougeot, A. Gavaldà, H. Astier and S. Arancibia (France, Spain) 166
Vasopressin mRNA in the cerebellum and circumventricular organs: a quantitative in situ hybridization study
P. Lepetit, M. Fevre-Montange, N. Gay, M.-F. Belin and P. Bobillier (France) 171
Evidence for a new, high-molecular weight isoform of protein kinase C in rat hippocampus
E. Sublette, M.U. Naik, X. Jiang, P. Osten, H. Valsamis, S.-i. Osada, S. Ohnot and T.C. Sacktor (USA, Japan) 175
Intra-hippocampal injection of 8-hydroxy-2-(di-*n*-propylamino)tetralin (8- OH-DPAT) inhibits partial and generalized seizures induced by kindling stimulation in cats
Y. Wada, M. Nakamura, H. Hasegawa and N. Yamaguchi (Japan) 179
Cloning and expression of a glutamate transporter from mouse brain
K. Tanaka (Japan) 183
Central administration of senktide, a tachykinin NK-3 agonist, has an antidiuretic action by stimulating AVP release in water-loaded rats
A. Saigo, Y. Takano, T. Matsumoto, M. Tran, Y. Nakayama, R. Saito, K. Yamada and H.-o. Kamiya (Japan) 187
Amyotrophic lateral sclerosis: quantitative autoradiography of [^{3}H]MK- 801/NMDA binding sites in spinal cord
C. Krieger, R. Wagey and C. Shaw (Canada) 191
Differential spinal projections of subregions in the forelimb area of the motor cortex in the cat
J.H. Martin (USA) 195
Different degrees of processing of secretogranin II in large dense core vesicles of bovine adrenal medulla and sympathetic axons correlate with their content of soluble PC1 and PC2
C. Egger, R. Kirchmair, R. Hogue-Angeletti, R. Fischer-Colbrie and H. Winkler (Austria, USA) 199
Neurite outgrowth of spinal neurons on tissue sections of embryonic muscle is largely integrin dependent
S.J. Harper, F.S. Walsh and P. Doherty (UK) 202
No age-related changes in human benzodiazepine receptor binding measured by PET with [^{11}C]Ro 15-4513
T. Suhara, O. Inoue, K. Kobayashi, K. Suzuki, T. Itoh and Y. Tateno (Japan) 207
Effect of iron and estrogen on melatonin secretion by the chicken pineal gland
M.I. Pablos, M.T. Agapito, J.M. Recio, L. Pérez-Gallardo, M.D. Córdova and J.O. Mori (Spain) 211
Capsaicin-induced central facilitation of a nociceptive flexion reflex in humans
M. Grönroos and A. Pertovaara (Finland) 215

Corrigendum 219

Acknowledgements to Reviewers 220

Author Index 236